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April 27, 2011

Mr. Stan Dixon, Chair  
State Board of Forestry and Fire Protection  
P.O. Box 944246  
Sacramento, CA 94244-2460

Dear Chairman Dixon and Members of the Board:

I want to congratulate the Jackson Advisory Group for their years of work on developing their January 2011 report. Their commitment to making Jackson Demonstration State Forest a “world class research and demonstration forest” is particularly noteworthy and reflects the JAG vision that recognizes the tremendous assets and potential of JDSF. Despite this worldly vision, JAG has outlined a JDSF with a homogenized landscape with relatively few variations in stand structure and therefore reduces the long-term research and demonstration potential of JDSF.

Research and demonstration forests are typically managed to include a diversity of stand structures and management approaches. This serves to facilitate the myriad of future, unforeseen research projects that might arise due to changing political winds, environmental issues, or simply questions related to forest biology. The JAG report recommends three primary land allocations:

1. matrix forestry consisting of single-tree selection and group selection under limited circumstances;
2. older forest structure zone that consists of single-tree and group selection, and commercial thinning; and
3. various forms of reserves.

Generally, under the JAG recommendations, forests will be managed to promote multiaged structures or they will receive minimal management. The net effect will be to create a large homogeneous landscape with little stand structural diversity. This will limit future research opportunities not only for silviculture, but for wildlife, recreation and other areas where stand structural diversity could be a critical variable for analysis.

Although the JAG recommendations allow alternative management systems within matrix lands, these systems would be “limited to specific research projects that would be peer-reviewed, restricted to the minimum size required for scientific validity, and for which funding was reasonably assured.” This is an unprecedented restriction on research on a public research and demonstration forest. It creates additional burdens to a specific subset of potential research and runs counter to the mission of broadly facilitating research and demonstration. Additionally, this restriction means that the only research in stands that are not uneven-aged will be in very young, regenerating even-aged stands since it would be impossible to otherwise anticipate the needs for stand structures decades in advance. By default, the JAG report eliminates all post-regeneration research opportunities in stand structures not already found in the matrix.

The JAG report suggests that research in other forest systems can be located on adjacent ownerships but ignores the fact that if research was easily facilitated on other ownerships, then a research and demonstration forest wouldn't be necessary. Again, the report recommends facilitation of a narrow subset of research goals and abrogates other goals to other, possibly unwilling neighbors.

In my interaction with a variety of research and demonstration forests in the United States, and internationally, the stand structural diversity that facilitates the most research activity is the result of intentional management objectives to create this diversity, not the result of a diversity of studies that require different regeneration methods. The pathway JAG has recommended is risky and there is probably little evidence from other research forests that it will work.

What appears to be a clear bias against anything but uneven-aged systems at JDSF will, in my opinion, result in a substantial reduction in stand structure diversity, reduce research activity, severely limit the demonstration function of JDSF, and result in downward trend in the ability of JDSF to meet its research mission. Instead of a research and demonstration mission, it appears as though the JAG recommendations move JDSF towards the mission of a California State Park. Although I recognize the JAG report presents the option of a research planning team to develop final landscape level allocations of silvicultural treatments, it seems the recommendations of this JAG report might dominate or constrain that process.

I would encourage you to consider retaining significant pieces of the 2008 JDSF management plan so that a diversity of research can be part the future of JDSF. This recommendation would favor no specific suite of silvicultural practices and would facilitate the greatest diversity of longterm research potential for JDSF. If the overriding goal at JDSF is a world-class research and demonstration forest, then the first step should be disregarding any prejudgements about specific practices and opening the forest to the broadest array of future research possible.

Sincerely yours,

A handwritten signature in black ink, appearing to read "K O'Hara". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kevin L. O'Hara  
Professor of Silviculture

Mark Hannon, forester  
Registered Professional Forester 2035  
PO BOX 455, Fort Bragg, CA 95437

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BOARD OF FORESTRY AND FIRE PROTECTION

State Board of Forestry and Fire Protection  
P.O. Box 944246  
Sacramento, CA 94244-2460

Dear Chairman Dixon and Members of the Board,

This letter is to share with you several important concerns that I and others in the Mendocino forestry community have with the Jackson Advisory Group and its recommendations.

While I have been anxious to respond throughout the JAG's work, I have had difficulty forming a meaningful response. I want to support the importance of the State Forest's research and demonstration but the work being done was wrong-headedly concerned with restoration and other concerns not related to timber management. I am grateful for the comments supplied to you by Marc Jameson as they helped me to once again focus on my concerns.

The sheer scope of effort to be devoted to non timber concerns seems likely to leave JDSF in a continued unmanageable condition because of the inflexibility of management options. Before adopting any of the JAG recommendations, please conduct a thorough feasibility analysis from both economic and management perspectives.

JDSF is a state forest, not a community forest. While the desires of the local community are important, they should not trump the value of the Forest to the state as a whole. The amount of public community involvement in the JAG process was surprisingly low, while needs at the state level are very high. Above all, JDSF is intended to demonstrate economical forest management. Please use the enabling legislation and the Board's policies for the state forests when reviewing the JAG recommendations. Ample opportunities exist on the many redwood state parks for research, implementation, and demonstration of the "restoration" of young redwood stands to a pre-managed "old growth" condition.

The recommended allocation of forest structure classes across the landscape is seriously flawed. It is not based upon strong science, nor does it reflect the recommendations made by several of the scientists and research forest managers consulted during the JAG process. Many of these scientists and forest managers recognized the unique opportunity offered by the sheer size of JDSF, making it possible to compare and contrast varied forest structures and management methods across the landscape. The landscape allocation in the 2008 Forest Management Plan will create greater structural diversity and research potential than the relatively narrow mix of "matrix" and old forest concepts offered in the JAG report. A very large acreage is being devoted to the untested and speculative benefits of older and late-seral forest on a managed landscape. Late-seral conditions

should be allowed by migrate, ebb and flow, across the landscape over time, such that production and research opportunities are maintained.

The matrix forestry concept unnecessarily constrains management. A very large area of JDSF is being slated for the experimental development of late-seral and older forest structures. When the streamside areas are included, this amounts to approximately nearly half of JDSF. This is a very large area to devote to an experiment. An assumption is being made that these older uneven-aged stands represent an improvement over younger stands with respect to timber value, fish and wildlife habitat, and watershed health. This remains an open question, however. It is also an open question whether the sustainable growth and harvest of very large trees is possible while concurrently sustaining high yields and adequate establishment and growth of regeneration. This experiment should proceed, but on a limited scale. It would be in keeping with the mission of Jackson to create and develop stands within a broad range of stocking levels, stand development trajectories, and management strategies, rather than a narrower set of conditions that tend to create dense old stands that are uncharacteristic of many or perhaps most that develop naturally.

Even-aged management, though not currently popular in with the public in areas of the state, is a long-standing and effective form of forest management utilized extensively on private lands throughout California and the nation. JDSF offers a unique opportunity to examine both even-aged and uneven-aged forest development over a very long period of time. This information would be invaluable, yet it appears as though the JAG intends to constrain even-aged management unnecessarily, due in large part to current public opinion. If practiced judiciously and appropriately, both management methods may be equally necessary to maintain productivity and biodiversity. Please allow the demonstration of even-aged management within the "matrix", even in the absence of a specific research requirement. If the need arises, we will be unable to study a 30 year old even age stand in the year 2041 unless we cut a stand now using even aged methods.

When considering the allocation of forest reserves in areas that are currently young forest, especially those toward the west side of JDSF, please consider the abundant acreage of young stands located adjacent to JDSF within state parks. These park stands can act as reserves for purposes of comparative research, rather than locking up more productive forest.

Research in natural hardwood development should be incorporated into areas already designated for either reserve status, or for late-seral development, selecting areas that have relatively high levels of hardwood stocking for this purpose. These study areas should be confined to logical sub-watersheds.

The proposed area for pygmy forest reserve is unnecessarily large for this purpose. This reserve should be limited to the area north of Jughandle Creek, or about 200 acres immediately adjacent to the pygmy forest. As it stands, the proposal results in a large loss of demonstration and productive potential. The designated area is productive timberland that has been managed selectively in the past, and the full potential of this area should be maintained.

The enabling legislation recognizes that forest management will take place adjacent to the Woodlands. The proposed management of the special treatment area is overly restrictive. A full suite of opportunities should be available in this area. What better place to demonstrate? Shielding recreationalists and forest neighbors from the forest management that JDSF is intended to demonstrate is unwarranted and counter to the purpose and potential of the state forests.

A conservative estimate of annual forest growth on Jackson exceeds 50 million board feet. Prior to 2001, JDSF successfully harvested an average of 29 million board feet each year, while building inventory. In the later years of this period, the harvest earned the State of California \$10 million per year, and sometimes significantly more. JDSF contains some of the oldest second-growth forest of any managed landscape within the region. With an increasing and aging inventory, it seems unreasonable and wasteful to allow harvest potential to dip below the levels specified in the 2008 Forest Management Plan and Option A. Even at these harvest levels, JDSF will continue to build inventory, producing larger trees and an older forest. The JAG landscape proposal will reduce harvest to less than one-third of growth, making effective management extremely difficult and increasingly difficult in the future. Forest conditions will continue to narrow, reducing both the breadth of potential future research and demonstration as well as relevance to many private land managers.

JDSF has the inventory and growth levels necessary to generate the revenue required to sustain a significant level of research and demonstration, infrastructure improvement, watershed restoration, and public recreation. JDSF has so little funding available for infrastructure maintenance that virtually all spur roads are rendered impassible, even to foot traffic, in a matter of a few years after productive use. JDSF also makes a needed and substantial contribution to the local economy, the local tax base, and the maintenance of dwindling infrastructure (mills, loggers, trucks, etc.). Economics seems to be treated as an after-thought in the JAG report, while recommendations that either create expensive program elements or result in a reduction in revenue potential are not lacking. Given the full extent of JAG recommendations, only infrequently and in the very best of timber markets would JDSF be self-sufficient.

JDSF was independent of the Mendocino Unit management for 45 years prior to 1992. As such, JDSF was self-reliant and appropriately managed by resource management personnel. JDSF should be placed back under the administrative umbrella of resource management personnel in Sacramento.

Please retain a demonstration focus and an adequate degree of management flexibility. Overly restrictive constraints and processes will result in a continued ineffective, inefficient, and unproductive demonstration forest.

Sincerely yours,

  
Mark Hannon

Marc J. Jameson  
P.O. Box 1502  
Fort Bragg, CA 95437

April 27, 2011

State Board of Forestry and Fire Protection  
P.O. Box 944246  
Sacramento, CA 94244-2460

Dear Chairman Dixon and Members of the Board:

This letter represents my comments upon the document titled "An Analysis of Sustainable Harvest Levels Achievable Under the Jackson Demonstration State Forest Advisory Group February 2011 Recommendations" prepared by Dr. Helge Eng and Mr. Jeff Leddy. I have found the analysis to have been appropriately conducted, given the limitations imposed upon management by the Jackson Advisory Group (JAG) recommendations (A VISION FOR THE FUTURE, THE REPORT OF THE JACKSON DEMONSTRATION STATE FOREST ADVISORY GROUP, *January 15, 2011*), and in particular, the recommendations associated with Landscape Allocation (Chapter 2).

Very few foresters within the state of California possess the qualifications necessary to produce such an analysis. Dr. Eng is one of the leaders in this field, having been the primary designer of methods utilized by both state and private foresters to produce and evaluate analysis of long term sustained yield. Mr. Leddy is also very qualified to conduct such an analysis, with many years of experience in this field. I have personally conducted and reviewed long-term forest growth and yield analyses over a period of 30 years, and served as a member of the advisory group during the development of the growth model CRYPTOS.

The Analysis provides for an annual harvest of approximately 15 million board feet during the first decade. This compares to the Option A estimate of approximately 30 million board feet per year during the first decade. This result is logical and appropriate, given the recommendations of the JAG.

An examination of the JAG's recommendations and process yields a series of indications that production will be driven downward relative to the 2008 Forest Management Plan. These include the following:

- Approximately 2,000 acres have been removed from production status and placed in reserve. These areas tend to be highly productive, relative

to the average condition of JDSF, and carry a large forest inventory relative to most of JDSF. Therefore, the effects upon near-term production levels are magnified well beyond the relative number of acres.

- Approximately 2,900 acres have been added to the Late Seral and Older Forest management categories. Most of this acreage is highly productive relative to the average conditions, and carries a very high inventory of older second-growth forest. Thus, the dampening effect upon current and future yield is high relative to the acres involved. Note that the exact area allocated to these management categories is somewhat difficult to parse from the JAG report (Appendix Table 5.3. Allocations).
- Although Late Seral and Older Forest Development may produce higher levels of growth in the near to mid-term, much of this growth is not available for harvest. Forest growth is dedicated to produce and retain large old trees, snags, logs, and other decadent structural elements, rather than harvestable timber (Appendix 5, B1 and B2). One simply cannot have high yields in the long-term while producing the structure of an old forest. True old forests eventually reach a state where growth and decay approach a balance, with no harvest taking place. While “old growth” may not be the target condition here, it is indicative of the trend involved.
- The very large Matrix area is restrictive of many forms of management when specific research is not being conducted. Additionally, harvest is intended to maintain future options rather than to create diverse stand conditions through application of many different management methods. This will tend toward only modest structural changes and harvest levels. This will also reduce biodiversity and preclude many stand conditions of interest and value.
- The Option A makes provision for many forms of management within the area that the JAG refers to as Matrix. Some example estimates of long-term harvest (over the 113 year planning period) for some of the management prescriptions taken from the Option A are as follows:

Single Tree Selection	1400 board feet/acre/year
Older Forest Development	1200
Late-Seral Development	900
Variable Retention	1500
Two-Aged Stand	1500

(note: these are only a small sub-set of the prescriptions modeled in the Option A, and intended only to serve as limited examples of potential relative harvest over time. The numbers indicated for each prescription above are approximations from the same forest type.)

A mix of these systems produces both greater diversity and higher yield than a more restrictive set of options.

- THPs prepared and harvested under JAG review and direction are indicative of the JAG’s silvicultural intentions. Two THPs have been

harvested using a Late Seral Development prescription designed by the Department under the direction of the JAG. When the actual yields are considered over a cutting cycle, the yield is relatively low, and much lower than projected for this system in the Option A. This yield can be expected to decline further in the future, due to dedication of greater stand volume to development and retention of large old trees and decadent stand elements. The 2008 Forest Management Plan envisioned a very broad set of structural options for creation of late-seral stands.

- Several THPs within the JAG's Matrix area have been harvested over the past two years under the review and direction of the JAG. The combined level of production represented by these THPs is approximately 12 thousand board feet per acre, in spite of very high preharvest stocking levels. This is a low level of production when considered over a 20-year harvest cycle. This relatively low harvest level, in spite of the fact that JDSF has not harvested any growth for nearly a decade. This is well below the level of production estimated in the Option A, where the matrix area was subject to a broader set of allowable management methods. This may be indicative of what the Matrix will produce in future, in the absence of specific research projects.
- The JAG has altered the meaning of Late Seral and Older Forest Development relative to the 2008 Forests Management Plan approved by the Board and modeled in the Option A. It would be incorrect to assume that the yields estimated in the JDSF Option A can be representative to what yields would be under the JAG recommendations.

Although terminology of these forest types defies clear definition, it is very clear that the JAG believes that these two development strategies will occur along nearly parallel trajectories over the next 40 years (Chapter 1, Page 3, Older Forest Development versus Late Seral Development). This is not what was set out in the 2008 Forest Management Plan and Option A, where Older Forest Development was intended to represent conditions somewhere intermediate between single tree selection of young stands, and Late Seral Development. The Department provided the JAG with a detailed document explaining the terminology relative to Table 7 of the management plan. To the best of my recollection, this document was not reviewed or discussed in any subsequent JAG meeting. Thus, the growth and yield anticipated from the JAG recommendations and the Option A are not comparable.

- In order for JDSF to obtain the level of harvest projected by the Option A, while maintaining the Landscape Allocation recommended by the JAG, approximately 50 percent more acres must be harvested each decade. The primary cause of this is an absence of even-aged management methods in the area designated as Matrix. Management and harvest costs will escalate, while diversity and demonstration value will decline.

A higher level of overall forest inventory does not necessarily equate to a higher level of timber production. The 2008 FMP anticipated a highly variable set of harvest methods, prescriptions, and structural conditions. This would tend to increase growth rates above that anticipated by the more narrow set of conditions prescribed through JAG recommendations. Higher rates of growth provide for higher levels of harvest relative to total standing inventory.

It is understandable that gross long-term growth and inventory may be higher under JAG direction, but much of this growth can never be harvested, and the growth rate will decline due to advanced stand age. The higher growth rates obtained under the Option A equate to higher production levels, in spite of a slightly lower overall level of inventory.

Please maintain the potential of JDSF to create a diverse and productive research and demonstration program, while remaining in compliance with existing legislation and Board policy. Please consider the following recommendations for modification or adjustment of some of the JAG's recommendations:

- Implement the research recommendations of the JAG in stages, following the conduct of feasibility analysis to insure that the recommendations can be successful and fully supported.
- For the remainder of the current management planning cycle, please consider utilizing the land allocation specified in the 2008 FMP, particularly as it involves the area referred to as the Matrix by the JAG. This is a well thought-out plan, which was thoroughly assessed in the EIR. In fact, many of the researchers who gathered at a JAG research forum in Berkeley found the 2008 Forest Management Plan landscape allocation to be appropriate in the near term (Appendix 6. B, bottom of page 85).
- Maintain the direction and definitions for Late Seral and Older Forest Development utilized in the 2008 FMP and provided to the JAG. These are two unique and separate forest classifications, and development trajectories should remain diverse within each of them.
- Incorporate the Hardwood Study Reserve into the portion of JDSF already allocated to Late Seral Development, rather than devoting additional acreage for this purpose.
- Reduce the forest reserve adjacent to the pygmy forest in the vicinity of Jughandle Creek, retaining the majority of this area for productive demonstration purposes.
- Allow management to occur within the Woodlands STA without requiring pre-testing of methods elsewhere on JDSF. Please allow for a broader set of uneven-aged management prescriptions to provide a demonstration and learning environment for children, in keeping with the management objective for the Woodlands, as set out by the Department of Parks and Recreation.

- Consider the JAG recommendations for additional Late Seral and Older Forest Development area, while allowing this area to shift about the landscape over time, without necessarily being concentrated on the high inventory, high site lands where it has been primarily designated. Older forest structure has ecological value on lands across the range of sites, not just on the highest sites with the highest stocking levels and greatest production potential.
- Consider utilizing more adjacent park stands to represent reserves, retaining the high site, productive stands of JDSF for research, demonstration, and production purposes.
- Separate the conduct of the recreation user-needs survey from the development of the recreation management plan. Maintain a broad spectrum of forest management and recreation expertise in the design and development of these activities.
- Maintain, at a minimum, the levels of harvest estimated in the JDSF Option A. These are well below the level of current growth, while allowing for the continued development of older forest.
- Above all, please maintain a sufficient level of production to fully fund the management of JDSF and other desired programs. Without sufficient funding and staffing, management of the State Forest system will not succeed.

Lastly I request that you not allow the current market situation to alter the direction of JDSF. For several decades, JDSF successfully harvested an average of 29 million board feet per year, though market conditions fluctuated significantly. In some years, the harvest slipped below 10 million board feet, while in others, the harvest level exceeded 40 million board feet. JDSF has successfully sold over 17mmbf this year alone, while the timber market remains depressed. There has been market flexibility built into the management of JDSF, which is appropriate for any large working forest entity.

Sincerely,



Marc J. Jameson  
NIPF and State Forest Manager, retired.